

CLAIMS

What is claimed is:

- 1 1. A method comprising:
2 copying and saving first pixel values corresponding to a first display screen
3 area;
4 blending the copied first pixel values with second pixel values to generate
5 third pixel values;
6 replacing the original first pixel values with the third pixel values to effectuate
7 display of a non-blocking always visible display;
8 monitoring for display operations that impact the first display screen area;
9 upon detection of such a display operation, replacing said third pixel values
10 with said first pixel values using said saved first pixel values;
11 upon completion of the detected operation, copying and saving fourth pixel
12 values corresponding to the first display screen area;
13 blending the copied fourth pixel values with said second pixel values to
14 generate fifth pixel values;
15 replacing the original fourth pixel values with the fifth pixel values to sustain
16 the non-blocking always visible characteristic of the non-blocking always visible
17 display.
- 1 2. The method of claim 1, wherein the method further comprises
2 marking a buffer holding said third/fifth pixel values changed; and
3 periodically checking to determining if said buffer has been marked changed.

1 3. The method of claim 1, wherein said monitoring comprises
2 intercepting invocations of display screen memory operations; and
3 determining if targeted display screen areas of the display screen memory
4 operations being invoked intersect with said first screen display area.

1 4. The method of claim 1, wherein the method further comprises
2 intercepting cursor events associated with said first display screen area; and
3 determining whether the cursor events are to be handled by an application
4 program associated with said non-blocking always visible display or an application
5 program associated with an underlying display window.

1 5. The method of claim 4, wherein each of said blending is performed in
2 accordance with a then current blending setting, and said determining comprises
3 determining if the current blending setting is greater than a predetermined threshold,
4 favoring contents of said non-blocking always visible display.

1 6. The method of claim 1, wherein said non-blocking always visible display is a
2 selected one of an on-line data monitor, a tool bar, a logo/mark, and an animated
3 assistant.

1 7. A method comprising:

2 copying and saving first pixel values corresponding to a first display screen

3 area;

4 blending the copied first pixel values with second pixel values corresponding

5 to a non-blocking always visible display to generate third pixel values;

6 replacing the original first pixel values with the third pixel values to effectuate
7 display of the non-blocking always visible display;
8 intercepting cursor events associated with said first display screen area; and
9 determining whether the cursor events are to be handled by an application
10 program associated with said non-blocking always visible display or an application
11 program associated with an underlying display window, based at least in part on a
12 current blending bias between said non-blocking always visible display and said
13 underlying display windows.

1 8. The method of claim 7, wherein said blending is performed in accordance
2 with a current blending setting, and said determining comprises determining if the
3 current blending setting is greater than a predetermined threshold, favoring contents
4 of said non-blocking always visible display.

1 9. The method of claim 7, wherein said non-blocking always visible display is a
2 selected one of an on-line data monitor, a tool bar, a logo/mark, and an animated
3 assistant.

1 10. A method comprising:
2 copying and saving first pixel values corresponding to a first display screen
3 area on which a non-block always visible on-line data monitor is to be rendered;
4 blending the copied first pixel values with second pixel values corresponding
5 to the non-block always visible on-line data monitor to generate third pixel values;
6 and
7 replacing the original first pixel values with the third pixel values to effectuate
8 display of the on-line data monitor with the non-blocking always visible attribute to

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9 provide visual differentiation between said on-line data monitor and underlying
10 display windows associated with locally executed application programs.

1 11. The method of claim 10, wherein the method further comprises
2 monitoring for display operations that impact the first display screen area;
3 upon detection of such a display operation, replacing said third pixel values
4 with said first pixel values using said saved first pixel values;
5 upon completion of said display operation, copying and saving fourth pixel
6 values corresponding to the first display screen area;
7 blending the copied fourth pixel values with said second pixel values to
8 generate fifth pixel values; and
9 replacing the original fourth pixel values with the fifth pixel values to sustain
10 the non-blocking always visible characteristic of the on-line monitor.

1 12. The method of claim 10, wherein the method further comprises
2 intercepting cursor events associated with said first display screen area; and
3 determining whether the cursor events are to be handled by an application
4 program associated with said non-blocking always visible on-line data monitor or an
5 application program associated with an underlying display window, based at least in
6 part on a current blending bias between said non-blocking always visible on-line
7 data monitor and underlying display windows.

1 13. A method comprising:
2 copying and saving first pixel values corresponding to a first display screen
3 area on which a non-block always visible task bar is to be rendered;

4 blending the copied first pixel values with second pixel values corresponding
5 to the non-block always visible task bar to generate third pixel values; and
6 replacing the original first pixel values with the third pixel values to effectuate
7 display of the task bar with the non-blocking always visible attribute.

1 14. The method of claim 13, wherein the method further comprises
2 monitoring for display operations that impact the first display screen area;
3 upon detection of such a display operation, replacing said third pixel values
4 with said first pixel values using said saved first pixel values;
5 upon completion of said display operation, copying and saving fourth pixel
6 values corresponding to the first display screen area;
7 blending the copied fourth pixel values with said second pixel values to
8 generate fifth pixel values; and
9 replacing the original fourth pixel values with the fifth pixel values to sustain
10 the non-blocking always visible characteristic of the task bar.

1 15. The method of claim 13, wherein the method further comprises
2 intercepting cursor events associated with said first display screen area; and
3 determining whether the cursor events are to be handled by an application
4 program associated with said non-blocking always visible task bar or an application
5 program associated with an underlying display window, based at least in part on a
6 current blending bias between said non-blocking always visible task bar and
7 underlying display windows.

1 16. A method comprising:

2 copying and saving first pixel values corresponding to a first display screen
3 area on which a non-block always visible logo/mark is to be rendered;
4 blending the copied first pixel values with second pixel values corresponding
5 to the non-block always visible logo/mark to generate third pixel values; and
6 replacing the original first pixel values with the third pixel values to effectuate
7 display of the logo/mark with the non-blocking always visible attribute.

1 17. The method of claim 16, wherein the method further comprises
2 monitoring for display operations that impact the first display screen area;
3 upon detection of such a display operation, replacing said third pixel values
4 with said first pixel values using said saved first pixel values;
5 upon completion of said display operation, copying and saving fourth pixel
6 values corresponding to the first display screen area;
7 blending the copied fourth pixel values with said second pixel values to
8 generate fifth pixel values; and
9 replacing the original fourth pixel values with the fifth pixel values to sustain
10 the non-blocking always visible characteristic of the logo/mark.

1 18. The method of claim 16, wherein the method further comprises
2 intercepting cursor events associated with said first display screen area; and
3 determining whether the cursor events are to be handled by an application
4 program associated with said non-blocking always visible logo/mark or an
5 application program associated with an underlying display window, based at least in
6 part on a current blending bias between said non-blocking always visible logo/mark
7 and underlying display windows.

1 19. A method comprising:
2 copying and saving first pixel values corresponding to a first display screen
3 area on which a non-block always visible animated assistant is to be rendered;
4 blending the copied first pixel values with second pixel values corresponding
5 to the non-block always visible animated assistant to generate third pixel values;
6 and
7 replacing the original first pixel values with the third pixel values to effectuate
8 display of the animated assistant with the non-blocking always visible attribute.

1 20. The method of claim 19, wherein the method further comprises
2 monitoring for display operations that impact the first display screen area;
3 upon detection of such a display operation, replacing said third pixel values
4 with said first pixel values using said saved first pixel values;
5 upon completion of said display operation, copying and saving fourth pixel
6 values corresponding to the first display screen area;
7 blending the copied fourth pixel values with said second pixel values to
8 generate fifth pixel values; and
9 replacing the original fourth pixel values with the fifth pixel values to sustain
10 the non-blocking always visible characteristic of the animated assistant.

1 21. The method of claim 19, wherein the method further comprises
2 intercepting cursor events associated with said first display screen area; and
3 determining whether the cursor events are to be handled by an application
4 program associated with said non-blocking always visible animated assistant or an
5 application program associated with an underlying display window, based at least in

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6 part on a current blending bias between said non-blocking always visible animated
7 assistant and underlying display windows.

1 22. An apparatus comprising:

2 storage medium having stored therein programming instructions designed to

3 copy and save first pixel values corresponding to a first display screen

4 area,

5 blend the copied first pixel values with second pixel values corresponding

6 to a non-blocking always visible display to generate third pixel values,

7 replace the original first pixel values with the third pixel values to

8 effectuate display of the non-blocking always visible display,

9 monitor for display operations that impact the first display screen area,

10 upon detection of such a display operation, replace said third pixel values

11 with said first pixel values using said saved first pixel values,

12 copy and save fourth pixel values corresponding to the first display screen

13 area,

14 blend the copied fourth pixel values with said second pixel values to

15 generate fifth pixel values,

16 replace the original fourth pixel values with the fifth pixel values to sustain

17 the non-blocking always visible characteristic of the non-blocking

18 always visible display; and

19 a processor coupled to the storage medium to execute the programming

20 instruction.

1 23. The apparatus of claim 1, wherein the programming instructions are further

2 designed to

3 mark a buffer holding said third/fifth pixel values changed, and
4 periodically check to determining if said buffer has been marked changed.

1 24. The apparatus of claim 22, wherein said programming instructions are
2 designed to
3 intercept invocations of display screen memory operations; and
4 determine if targeted display screen areas of the display screen memory
5 operations being invoked intersect with said first screen display area.

1 25. The apparatus of claim 22, wherein the programming instructions are further
2 designed to
3 intercept cursor events associated with said first display screen area, and
4 determine whether the cursor events are to be handled by an application
5 program associated with said non-blocking always visible display or an application
6 program associated with an underlying display window.

1 26. The apparatus of claim 25, wherein said programming instructions are
2 designed to perform each of said blending in accordance with a then current
3 blending setting, and perform said determine by determining if the current blending
4 setting is greater than a predetermined threshold, favoring contents of said non-
5 blocking always visible display.

1 27. The apparatus of claim 22, wherein said non-blocking always visible display
2 is a selected one of an on-line data monitor, a tool bar, a logo/mark, and an
3 animated assistant.

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1 30. The apparatus of claim 28, wherein said non-blocking always visible display
2 is a selected one of an on-line data monitor, a tool bar, a logo/mark, and an
3 animated assistant.

1 31. An apparatus comprising:
2 storage medium having stored therein programming instructions designed to
3 copy and save first pixel values corresponding to a first display screen
4 area on which a non-block always visible on-line data monitor is to be
5 rendered;
6 blend the copied first pixel values with second pixel values corresponding
7 to the non-block always visible on-line data monitor to generate third
8 pixel values, and
9 replace the original first pixel values with the third pixel values to
10 effectuate display of the on-line data monitor with the non-blocking
11 always visible attribute to provide visual differentiation between said
12 on-line data monitor and underlying display windows associated with
13 locally executed application programs; and
14 a processor coupled to the storage medium to execute the programming
15 instructions.

1 32. The apparatus of claim 31, wherein the programming instructions are further
2 designed to
3 monitor for display operations that impact the first display screen area,
4 upon detection of such a display operation, replace said third pixel values
5 with said first pixel values using said saved first pixel values,

1 33. The apparatus of claim 31, wherein the programming instructions are further
2 designed to
3 intercept cursor events associated with said first display screen area, and
4 determine whether the cursor events are to be handled by an application
5 program associated with said non-blocking always visible on-line data monitor or an
6 application program associated with an underlying display window, based at least in
7 part on a current blending bias between said non-blocking always visible on-line
8 data monitor and underlying display windows.

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3 monitor for display operations that impact the first display screen area,

6 upon completion of said display operation, copy and save fourth pixel values

8 blend the copied fourth pixel values with said second pixel values to generate
9 fifth pixel values, and

1 36. The apparatus of claim 34, wherein the programming instructions are further
2 designed to

3 intercept cursor events associated with said first display screen area, and

4 determine whether the cursor events are to be handled by an application

5 program associated with said non-blocking always visible task bar or an application

6 program associated with an underlying display window, based at least in part on a

7 current blending bias between said non-blocking always visible task bar and

8 underlying display windows.

1 37. An apparatus comprising:

2 storage medium having stored therein programming instructions designed to

3 copy and save first pixel values corresponding to a first display screen
4 area on which a non-block always visible logo/mark is to be rendered,
5 blend the copied first pixel values with second pixel values corresponding
6 to the non-block always visible logo/mark to generate third pixel
7 values, and
8 replace the original first pixel values with the third pixel values to
9 effectuate display of the logo/mark with the non-blocking always visible
10 attribute; and
11 a processor coupled to the storage medium to execute the programming
12 instructions.

1 38. The apparatus of claim 37, wherein the programming instructions are further
2 designed to
3 monitor for display operations that impact the first display screen area,
4 upon detection of such a display operation, replace said third pixel values
5 with said first pixel values using said saved first pixel values,
6 upon completion of said display operation, copy and save fourth pixel values
7 corresponding to the first display screen area,
8 blend the copied fourth pixel values with said second pixel values to generate
9 fifth pixel values, and
10 replace the original fourth pixel values with the fifth pixel values to sustain the
11 non-blocking always visible characteristic of the logo/mark.

1 39. The apparatus of claim 37, wherein the programming instructions are further
2 designed to
3 intercept cursor events associated with said first display screen area; and

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4 determine whether the cursor events are to be handled by an application
5 program associated with said non-blocking always visible logo/mark or an
6 application program associated with an underlying display window, based at least in
7 part on a current blending bias between said non-blocking always visible logo/mark
8 and underlying display windows.

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1 40. An apparatus comprising:
2 storage medium having stored therein programming instructions designed to
3 copy and save first pixel values corresponding to a first display screen
4 area on which a non-block always visible animated assistant is to be
5 rendered,
6 blend the copied first pixel values with second pixel values corresponding
7 to the non-block always visible animated assistant to generate third
8 pixel values, and
9 replace the original first pixel values with the third pixel values to
10 effectuate display of the animated assistant with the non-blocking
11 always visible attribute; and
12 a processor coupled to the storage medium to execute the programming
13 instructions.

1 41. The apparatus of claim 40, wherein the programming instructions are further
2 designed to
3 monitor for display operations that impact the first display screen area,
4 upon detection of such a display operation, replace said third pixel values
5 with said first pixel values using said saved first pixel values,

6 upon completion of said display operation, copy and save fourth pixel values
7 corresponding to the first display screen area,
8 blend the copied fourth pixel values with said second pixel values to generate
9 fifth pixel values, and
10 replace the original fourth pixel values with the fifth pixel values to sustain the
11 non-blocking always visible characteristic of the animated assistant.

1 42. The apparatus of claim 40, wherein the programming instructions are further
2 designed to
3 intercept cursor events associated with said first display screen area, and
4 determine whether the cursor events are to be handled by an application
5 program associated with said non-blocking always visible animated assistant or an
6 application program associated with an underlying display window, based at least in
7 part on a current blending bias between said non-blocking always visible animated
8 assistant and underlying display windows.